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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,213	10/30/2003	Eduardo Jimenez	7433-00	2198
23909	7590	05/12/2006	EXAMINER	
COLGATE-PALMOLIVE COMPANY			GUIDOTTI, LAURA COLE	
909 RIVER ROAD			ART UNIT	PAPER NUMBER
PISCATAWAY, NJ 08855			1744	

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,213

Applicant(s)

JIMENEZ ET AL.

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45,47-49,77 and 79-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45,47-49,77 and 79-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01242006</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 24 January 2006 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 45, 47-48, and 79-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urbush, USPN 3,316,576 in view of Volpenhein, USPN 5,839,148.

Urbush discloses a toothbrush comprising a handle (12), a head (18; the head is a conventional toothbrush) connected to the handle by a neck element (14), and a mechanical vibratory device (portions 40, 41, 42, 43) that causes the head to vibrate (via 21; Column 2 Lines 33-39). Regarding claim 77, the mechanical vibratory device is located in the region adjacent to the head (see Figures) and is operatively connected to an electric power source (Column 1 Lines 9-11; Column 2 Lines 38-39). Urbush utilizes as its head a conventional toothbrush (Column 1 Lines 48-49) and the device is capable of using various sizes and types of conventional toothbrushes in the vibratory portion (Column 1 Lines 13-20). Urbush does not include a head comprising movable elements.

Volpenhein discloses the claimed invention including a head (10) having a first surface (lowermost surface facing downward in Figure 1) and a second surface (uppermost surface facing upward in Figure 1), a first cleaning element extending from the first surface that is non-movable relative to the head (one of the tufts "18" farthest

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from the handle 30), a second cleaning element extending from the first surface that is non-movable relative to the head (another one of the tufts "18" nearest to the handle 30), a plurality of third cleaning elements disposed between the first and second cleaning elements (14) and being movable relative to the head (see arrow in Figure 1; Column 2 Lines 11-15), and a discontinuity in the head directly opposite at least one of the plurality of third cleaning elements to allow for movement of the at least one of the plurality of third cleaning elements relative to the head (the discontinuity being the opening within the brush head 10 as shown in Figure 2). The toothbrush is designed for providing control and cleaning ability of fixed tufts while also providing for the cleaning effectiveness of the movable tufts that follow the contour of the teeth (Abstract).

Regarding claim 47, there is at least one additional cleaning element included in an area between the first or second and third cleaning elements (other rows of bristle tufts 18, see Figures). Regarding claim 48, the third cleaning elements comprise movable wipers (the third cleaning elements 14 are tufts of bristles which act as wipers).

Regarding claim 79, the discontinuity is on the second surface opposite at least one of the plurality of third cleaning elements (see Figure 2). Regarding claims 80-81, at least one of the plurality of third cleaning elements is movable toward at least one of and each of the first and second cleaning elements (as the third cleaning elements "rock" they move towards one of the first or second cleaning elements and are capable of being movable toward each of the first and second cleaning elements; see directional arrow in Figure 1). Regarding claims 82-84, there is a fourth cleaning element disposed between the first cleaning element and at least one of the plurality of third cleaning

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elements (the fourth cleaning element is one of the inner tufts 18 between the first cleaning element and the third cleaning elements, see Figures 1-2), at least one of the plurality of third cleaning elements is movable toward at least one of and each of the first and fourth cleaning elements (see Figures 1-2).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to substitute the conventional toothbrush head of Urbush for one having a movable cleaning elements and first and second non-movable cleaning elements, as Volpenhein teaches, so that the toothbrush can resiliently conform to the inner mouth and tooth surfaces of which the toothbrush is cleaning to better aid in the cleaning of teeth and the oral cavity.

3. Claims 85-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urbush, USPN 3,316,576 in view of Volpenhein, USPN 5,839,148 and Flewitt, USPN 5,896,614.

Urbush discloses all elements above, however does not include a head comprising a plurality of movable elastomeric wipers disposed between first and second cleaning elements that are non-movable relative to the head.

Volpenhein discloses all elements above, including the teaching of a head (10) comprising a plurality of movable cleaning elements (14) disposed between first and second cleaning elements (leftmost and rightmost tufts 18 as shown in the Figures) that are non-movable relative to the head. Regarding claims 86-87, the first and second cleaning elements extend from a first surface of the head (the first surface is shown downwards in the Figures) and the discontinuity (the opening in the head 10) is present

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and visible with reference to the second surface (the surface facing upwards in the Figures) of the head opposite the first (as shown in Figures 1-2). Volpenhein does not disclose that the plurality of movable cleaning elements are elastomeric wipers.

Flewitt teaches a bristle arrangement for a toothbrush wherein there are both cleaning elements of tufts of bristles (14, 15) and a plurality of elastomeric wipers (12 or 13; Column 3 Lines 40-42) disposed between groups of tufts of bristles (Figure 7). These elastomeric wiper cleaning elements are provided to improve the cleaning efficiency in brushing teeth and also are advantageous as they are unlikely to retain moisture that could lead to the growth of bacteria (Column 3 Line 63 to Column 4 Line 5).

It would have been obvious for one of ordinary skill in the art to substitute the conventional toothbrush head of Urbush for one having a movable cleaning elements and first and second non-movable cleaning elements, as Volpenhein teaches, so that the toothbrush can resiliently conform to the inner mouth and tooth surfaces of which the toothbrush is cleaning to better aid in the cleaning of teeth and the oral cavity, and further it would have been obvious for one of ordinary skill in the art to substitute the third cleaning elements of Urbush and Volpenhein for elastomeric wipers, as Flewitt teaches, in order to improve the cleaning efficiency and efficacy of a toothbrush and to inhibit possible bacteria growth on a toothbrush.

4. Claims 45, 47-49, 77, and 79-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urbush, USPN 3,316,576 in view of JP 2001-190333 (see also computer generated English translation).

Urbush discloses a toothbrush comprising a handle (12), a head (18; the head is a conventional toothbrush) connected to the handle by a neck element (14), and a mechanical vibratory device (portions 40, 41, 42, 43) that causes the head to vibrate (via 21; Column 2 Lines 33-39). Regarding claim 77, the mechanical vibratory device is located in the region adjacent to the head (see Figures) and is operatively connected to an electric power source (Column 1 Lines 9-11; Column 2 Lines 38-39). Urbush utilizes as its head a conventional toothbrush (Column 1 Lines 48-49) and the device is capable of using various sizes and types of conventional toothbrushes in the vibratory portion (Column 1 Lines 13-20). Urbush does not include a head comprising movable cleaning elements.

JP 2001-190333 teach a brush head (1) having a first surface (uppermost surface as shown in Figure 2) and a second surface (lowermost surface as shown in Figure 2), there is a first cleaning element extending from a first surface that is non-movable relative to the head (leftmost tufts of bristles "10" as shown in Figures 10f, 10g, 10h; paragraph 30 in English translation), a second cleaning element extending from the first surface that is non-movable relative to the head (rightmost tufts of bristles "10" as shown in Figures 10f, 10g, 10h; paragraph 30 in English translation), a plurality of third cleaning elements disposed between the first and second cleaning elements (tufts "5" shown in Figures 10f, 10g, 10h) that are movable relative to the head (paragraph 30 in English translation; range of motion shown in Figures 2-3), and a discontinuity in the head directly opposite at least one of the plurality of third cleaning elements (as shown in Figure 4, there is a discontinuity in materials that comprise the head directly opposite

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the third cleaning elements so allow for a further surface discontinuity when force is applied). Regarding claim 47, there is at least one additional cleaning element included in an area between the first or second and third cleaning elements (in Figure 10g there are additional rows of tufts "10" between the first or second cleaning element and the third cleaning elements). Regarding claims 48-49, the third cleaning elements comprise movable wipers (the tufts of bristles "5" are movable wipers, as shown in Figures 2-3) and they are mounted on a resilient membrane (3) and rotate towards one another upon application of sufficient force on the toothbrush and away from each other upon release of that force (Figures 2-3; paragraphs 20-22 in English translation). Regarding claim 79, the discontinuity is on the second surface opposite the at least one of the plurality of third cleaning elements (as shown in Figure 4). Regarding claims 80-81, at least one of the plurality of third cleaning elements is movable toward at least one of and each of the first and second cleaning elements (as shown in Figures 2-3, the third cleaning elements are capable of being movable toward each of the first and second cleaning elements; paragraph 21 in English translation). Regarding claims 82-84, there is a fourth cleaning element disposed between the first cleaning element and at least one of the plurality of third cleaning elements (the fourth cleaning element is one of the inner tufts 10 between the first cleaning element and the third cleaning elements, see Figure 10g), at least one of the plurality of third cleaning elements is movable toward at least one of and each of the first and fourth cleaning elements (see Figures 2-3; paragraph 21 in English translation).

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It would have been obvious for one of ordinary skill in the art at the time the invention was made to substitute the conventional toothbrush head of Urbush for one having a movable cleaning elements and first and second non-movable cleaning elements, as JP 2001-190333 teaches, so that the toothbrush can resiliently conform to the inner mouth and tooth surfaces of which the toothbrush is cleaning to better aid in the cleaning of teeth and the oral cavity.

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER